

Curriculum for the MSc Programme in Information Technology at the IT University of Copenhagen

1 October 2003

Contents

- Chapter 1. The programme, its objectives, duration and titles
- Chapter 2. Admission requirements, conditions of admissions, etc.
- Chapter 3. Structure, contents, etc.
- Chapter 4. Examinations
- Chapter 5. Miscellaneous regulations
- Chapter 6. Date of commencement and transitional regulations

Background

This curriculum for the MSc Programme in Information Technology has been drawn up by the three Boards of Studies responsible for the programme, i.e. the Board of Studies for E-Business (EBUSS), the Board of Studies for Interdisciplinary IT Development and the Board of Studies ITU at the IT University of Copenhagen (henceforth referred to as the IT University) in compliance with the Ministry of Science, Technology and Innovation's Transitional rules for the Master of Science programme in Information Technology and the Master's programmes in Information Technology at the IT University of Copenhagen of 12 August 2003 (henceforth referred to as the MSc in Information Technology Executive Order). This document, in conjunction with the programme-specific rules for each of the MSc programmes, constitutes the curriculum.

This curriculum uses the designations "the Board of Studies" and "the Study Administration" to refer to the Board of Studies and the Study Administration to which the student's MSc programme refers.

Chapter 1 The programme, its objectives, duration and titles

Objectives

Section 1. The purpose of the MSc Programme in Information Technology is to provide students with the scientific qualifications to formulate and solve complex problems relating to information technology.

Subsection 2. The programme prioritises the students' ability to develop and apply the underlying technology as well as the scientific theories and methods upon which it is based.

Subsection 3. The programme builds upon the preceding bachelor's programme and provides students with the qualifications to define their own academic profiles within the field of information technology.

Subsection 4. Within the framework of the programme, students should be able to acquire the requisite qualifications for posts in business and industry as well as for research training programmes (PhD programme) in information technology, cf. the University Act section 2 and the Course Structure Executive Order section 1.

Study Programmes

Section 2. The overall degree includes the following programmes, each of which extends the student's knowledge of specific academic disciplines:

- Design, Communication and Media (DCM)
- E-Business (EBUSS)
- Internet and Software Technology (INT)
- Multimedia Technology (MMT)
- Software Development (SWU)
- Interdisciplinary IT Development (TIT)

Subsection 2. Each study programme is subject to special composition requirements designed to guarantee academic breadth and depth. These requirements are stipulated in the programme-specific rules for each of the MSc programmes.

Subsection 3. The Board of Directors of the IT University has the power to abolish a study programme or to start new ones.

Subsection 4. The IT University is empowered to outsource parts of the programme to Roskilde University, Copenhagen Business School, Technical University of Denmark or the University of Copenhagen.

Duration

Section 3. The programme has a standard duration of two student full-time equivalents. A student full-time equivalent is defined as the work done in one year by a full-time student. A student full-time equivalent corresponds to 60 points in the European Credit Transfer System (ECTS points), cf. MSc in Information Technology Executive Order section 3, subsection 1.

Subsection 2. The programme must be concluded within five years. Under special circumstances, the IT University is entitled to grant exemptions from this regulation, cf. the MSc in Information Technology Executive Order section 3, subsection 2.

Titles

Section 4. Students, who have completed the MSc programme in Information Technology, have the right to use the title *candidatus/candidata informationis technologiae (cand.it.)* with the addition of the designation for the appropriate study programme.

Subsection 2. The title in English is Master of Science (MSc) in IT.

Chapter 2

Admission requirements, conditions of admissions, etc.

Admission requirements

Section 5. Admission to the MSc programme is conditional upon the applicant having successfully completed a bachelor's programme prior to commencing studies for the MSc, cf. the MSc in Information Technology Executive Order section 5, subsection 1.

Subsection 2. The programme-specific rules may contain admission requirements pertaining to individual programmes.

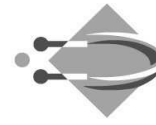
Subsection 3. After an individual assessment of the applicant, the IT University has the authority to grant admission to the programme to an applicant who does not have a bachelor's degree or does not meet the programme-specific admission requirements, provided the applicant is deemed to have corresponding qualifications sufficient to cope with the demands of the programme, cf. the MSc in Information Technology Executive Order, section 5.

Subsection 4. The IT University is entitled to offer supplementary programmes lasting up to one full term. The idea is that students admitted to supplementary programmes will gain qualifications equivalent to those held by the students admitted directly onto the MSc programme and which will enable them to cope with the demands of the programme.

Conditions of admission

Section 6. Meeting the admission requirements stipulated in section 5 is a necessity but not sufficient for admission on its own.

Subsection 2. The IT University stipulates the exact rules for admission criteria if there are more qualified applicants, cf. section 5, than there are places available. The IT University informs potential applicants of application deadlines, required documentation, qualification criteria including programme-specific requirements, principles for assessment and prioritisation of applications and administrative requirements, cf. admission rules for the IT University and the Executive order on admission, enrolment and leave of absence etc. for further education study programmes section 47 and section 49.



Subsection 3. Applicants who have already completed a master's (*candidatus*) programme may only be admitted if places are available on the programme. The same rule applies to applicants who have twice previously been enrolled on further education study programmes without passing final examinations, cf. the Executive order on admission, enrolment and leave of absence etc. for further education study programmes.

Applications

Section 7. Applications for admission are submitted directly to the IT University with a view to commencing studies at the advertised starting date.

Subsection 2. When admitted, the student is enrolled on one, and only one, MSc programme.

Subsection 3. If documentation of the completed bachelor's degree was not available at the time the application was submitted, the IT University is entitled to make admission conditional on the applicant submitting such documentation before the programme starts. The application must, however, include all the information about the applicant's bachelor's degree that is available at the time the application is submitted, including information pointing to the probability of the bachelor's degree being gained before the start of the MSc programme to which the applicant has applied for admission. If this documentation is not submitted by study start, the conditional offer will be rescinded.

Subsection 4. If a student has been offered, and has accepted, admission to an MSc programme, the study start cannot be postponed to a later point in time.

Subsection 5. In special circumstances, the IT University is entitled to grant exemptions from the requirement to commence studies at the start of term, the deadline for documentation of a completed bachelor's degree and the rules about postponing study start.

Enrolment

Section 8. To take part in study activities at the IT University, you have to be enrolled on a programme at the IT University, be a guest student, a PhD student or be a part-time student who only takes part in selected study activities, including income-generating activities.

Subsection 2. Before the start of the study activity, guest students must document pre-approval of credits on their own MSc programme from their own Boards of Studies.

Subsection 3. Students are not allowed to be enrolled on more than one full-time programme at a time.

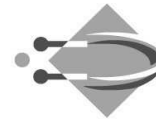
Chapter 3

Structure, contents, etc.

Term structure

Section 9. An academic year consists of two terms, the autumn term and the spring term.

Subsection 2. Each term consists of a *course period* of approximately 13 weeks, which in-



cludes 12 weeks of teaching, followed by a *project period* of approximately 4 weeks. The term ends with an *examination period*.

Subsection 3. Schematically, the course period consists of three parallel *teaching blocks* worth 7.5 ECTS points each. The project period constitutes a separate teaching block worth 7.5 ECTS points.

Subsection 4. The Study Administration at the IT University publishes the exact starting and finishing dates for the course period, the project period and the examination period well in advance of the start of each term.

Programme structure

Section 10. The MSc programme requires passes in *study activities* corresponding to a workload of 120 ECTS points, including a *thesis* corresponding to 30 ECTS points.

Subsection 2. One term of full-time study consists of study activities worth 30 ECTS points.

Subsection 3. The standard MSc programme is illustrated below.

1st term			2nd term			3rd term			4th term
7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	Thesis 30 ECTS
E	E	E	E	E	E	E	E	E	
C	C	C	C	C	C	C	C	C	
T	T	T	T	T	T	T	T	T	
S	S	S	S	S	S	S	S	S	
7,5 ECTS			7,5 ECTS			7,5 ECTS			
Exams			Exams			Exams			

Subsection 4. Students must not take part in study activities worth more than the prescribed 120 ECTS points. In special cases, the Board of Studies may grant an exemption from the maximum number of ECTS points. However, the student's examination certificate must not normally include study activities worth more than 120 ECTS points.

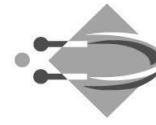
Subsection 5. If a student fails to sit for an examination in study activities for which he or she has registered, the IT University is entitled to reduce, and in special cases even reallocate, the teaching resources devoted to the student.

Study activities

Section 11. A study activity consists of either a *course activity* or a *project activity*.

Subsection 2. For an average student, a study activity worth x ECTS points must correspond to a total workload of approximately x*20 hours, excluding the preparation for, and sitting for, an examination. The workload must be evenly spread over the time dedicated to the study activity. For example, a course activity that runs for 12 weeks and is prescribed to 7.5 ECTS points corresponds to a weekly workload of approximately 12.5 hours.

Subsection 3. The Board of Studies is entitled to classify study activities as introductory or advanced. An introductory study activity covers parts of a certain subject area but does not



require any special previous knowledge of the subject. An advanced study activity requires knowledge equivalent to one or more other specified study activities in the same subject area.

Subsection 4. All study activities, including theses, are concluded with an examination. When the examination has been passed, the study activity is considered passed.

Subsection 5. There is only one Board of Studies for each study activity. The Board of Studies is responsible for arranging examinations and assessments of the study activity. Only the Board of Studies responsible for a particular study activity is empowered to organise examinations and assessments.

Subsection 6. A Board of Studies does not have the power to demand that a student must be enrolled on a certain MSc programmes out of the six programmes in order to take part in a study activity that belongs under the Board of Studies in question.

Subsection 7. Students must be allowed to do project activities worth up to 15 ECTS points and their theses in collaboration with students from other study programmes, as described in section 13.

Subsection 8. Each Board of Studies must seek to plan its teaching capacity in such a way that space is available for students enrolled on other programmes.

Course activities

Section 12. During a *course activity*, students attend organised classes, which may include lectures, short assignments, practical and theoretical exercises, home study, field trips, etc.

Subsection 2. A course activity usually takes up one, and only one, teaching block per term.

Subsection 3. For each study programme, the Board of Studies responsible for the study programme designates a number of introductory and advanced course activities.

Project activities

Section 13. A *project activity* consists of targeted, independent learning under supervision.

Subsection 2. A project activity is normally done in groups of two-five students. Dependent on the nature of the project activity, the Board of Studies may grant permission for group sizes of 1-12 participants.

Subsection 3. A project activity is defined by a *project agreement*.

Subsection 4. The problem formulation and frameworks for the project activity are defined at the start of the project activity, including whether the project activity is introductory or advanced, cf. section 11, subsection 3. Each student taking part also has to state what personal qualifications he or she possesses for participation. The student is entitled to ask for an assessment of whether the project activity falls within the boundaries of one or more of the study programme's subject areas, cf. section 17.

Subsection 5. Before a project activity may be run, the Board of Studies of each of the participating students must approve it, cf. section 11, subsection 5.

Subsection 6. One, and only one, Study Administration looks after the administration for each project agreement. The principal supervisor acts as the contact person with this Study Administration.

Registration for study activities

Section 14. To take part in a study activity, a student must register in advance.

Subsection 2. When choosing study activities, it is the responsibility of the student to make sure that all general and programme-specific composition requirements for a course of study can and will be met.

Theses

Section 15. Theses follow the same rules that apply to other project activities, cf. section 13. The following special conditions also apply to theses.

Subsection 2. A thesis must be worth 30 ECTS points. It must be written individually or in a group of maximum four students. The normal time scale for writing a thesis, excluding the public defence, is six months.

Subsection 3. The thesis subject and the project agreement are drafted in collaboration with one or more supervisors.

Subsection 4. The thesis must not be started (and finished) prior to completion of study activities corresponding to at least 60 ECTS points. The thesis is concluded with a written report and an oral defence. The written report must be in Danish or English.

Subsection 5. The written report and defence are designed to show, by applying, describing or elaborating upon specialised knowledge within the appropriate MSc programme area, that the student has achieved the objectives of the programme, cf. section 1. A thesis may be experimental, communicative or innovative.

Subsection 6. Please also refer to the IT University guidelines for thesis writing.

Work experience and study trips abroad

Section 16. Study activities based on work experience must be formulated as project activities, cf. section 13.

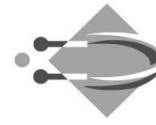
Subsection 2. Credits for study trips abroad may be transferred to the programme. Credits for educational activities during a study trip abroad can be transferred as course and/or project activities, provided they meet the requirements for course and/or project activities, cf. section 20.

Composition requirements

Section 17. The course of study for a given study programme must satisfy the requirements for *breadth and depth*.

Subsection 2. The requirement for breadth is expressed in terms of the subject areas that the student must cover, cf. the programme-specific rules. For each study programme, the Board of Studies responsible for the programme in question stipulates which study activities fall within which subject areas. A study activity may fall within more than one subject area on the same study programme or different programmes.

Subsection 3. The requirement for depth is expressed in terms of the level on which a given study activity is to be studied, cf. section 11, subsection 3. The requirement for depth is ful-



filled by the requirement that the student may pass a maximum of 37.5 ECTS points study activities that are classified as introductory. In addition, the student must pass advanced study activities corresponding to at least 15 ECTS points (excluding the thesis).

Subsection 4. Project activities must be worth at least 22.5 ECTS points (excluding the thesis).

Subsection 5. It is shown in the course base of the IT University what course activities meet the composition requirements for the study programmes.

Subsection 6. The Boards of Studies co-ordinate a point barring system for course activities that preclude each other, e.g. because of overlapping content.

Subsection 7. Where a student has acquired elements of the MSc programme as part of the bachelor's degree that served as his or her entrance qualification, those elements may only count in terms of satisfying the composition requirements, but cannot shorten the duration or lessen the scope of the study programme.

Subsection 8. Further composition requirements are stipulated in the programme-specific rules for each of the MSc programmes.

Chapter 4

Examinations

Section 18. The IT University issues examination certificates for all of the study programmes included in the MSc programme.

Subsection 2. The following rules apply for examinations:

- 1) Executive order on examinations on certain further education programmes under the Ministry of Education and the Ministry of Science, Technology and Innovation (the Examination Order).
- 2) Executive order on external examiners on certain further education programmes under the Ministry of Education (the External Examiner Order).
- 3) Executive order on the grading scale and other forms of assessment.

Subsection 3. Please also refer to:

- 1) The IT University's examination regulations.
- 2) The IT University's rules and procedures for complaints.

Chapter 5

Miscellaneous regulations

Transferring to another programme

Section 19. A student wishing to transfer to another MSc programme or degree programme at the IT University must apply for admission to the programme under the same rules that apply to everybody else who applies for admission to the IT University, i.e. in compliance with the current rules for admission to the IT University at any given point in time.

Subsection 2. When assessing transfer applications, the IT University is entitled to consider all registered information about the work done by the student at the IT University to date.

Subsection 3. When transferring to another MSc programme, all passed study activities are automatically transferred in compliance with the composition requirements, cf. section 17, for the new MSc programme.

Subsection 4. When transferring to another degree programme, the student may apply to have all passed study activities transferred to the new programme.

Credit transfer

Section 20. Credits can be awarded for parts of the degree by credit transfer from other institutions but only up to a maximum of 90 ECTS points.

Subsection 2. The content of the activity for which the credit is transferred must correspond with the objectives of the MSc programme, and documentation must be presented to stipulate the subject area, whether it was at introductory or advanced level, the ECTS value and assessment, and whether the activity was on master's (*candidatus*) level (as opposed to bachelor's level).

Subsection 3. Study activities for which credits are transferred may be included when honouring the composition requirements for an MSc programme, provided they were of comparable academic level, scope and content.

Subsection 4. Credits cannot be transferred to the thesis.

Subsection 5. The Board of Studies is entitled to limit the number of credits transferred on the basis of special categories of study activities, e.g. in connection with study activities based on work experience.

Subsection 6. Credit transfers for study activities from other institutions require approval by the Board of Studies.

Leave of absence

Section 21. Students cannot be granted leave of absence until they have earned 30 ECTS points and must apply for leave to the Study Administration.

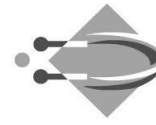
Subsection 2. Once 30 ECTS points have been earned, leave of absence may be granted by the Study Administration for up to six months. Leave of absence for longer than six months will require a new exemption from the Study Administration.

Subsection 3. Leave of absence may be granted before 30 ECTS points have been earned in the event of prolonged illness, childbirth, adoption or national service. Applications and the relevant documentation are submitted to the Study Administration.

Subsection 4. Leave of absence before 30 ECTS points have been earned in special cases other than those mentioned in subsection 3 requires approval by the Study Administration.

Competence

Section 22. The general competence for and within the programme is described in the IT University statutes, relevant agreements about study programmes between the IT University and other institutions and in current legislation and executive orders.



Subsection 2. The practical organisation of the programme is carried out by three Boards of Studies, i.e. the Board of Studies for E-Business (EBUSS), the Board of Studies for Interdisciplinary IT Development and the Board of Studies ITU.

Subsection 3. Each MSc programme is the responsibility of only one Board of Studies. Several MSc programmes may be the responsibility of the same Board of Studies, which may also be the Board of Studies for other degree programmes at the IT University.

Subsection 4. For each of the MSc programmes belonging under a Board of Studies, the Board of Studies is responsible for the following:

1. Rules and requirements for objectives, composition, content and academic and temporal progression of the course of study.
2. Requisition, approval, call for proposals, format, academic classification and evaluation of study activities and associated examinations, including approval of special initiatives for, and forms of, study activities and examinations.
3. Co-ordination of courses on offer with other Boards of Studies to avoid courses with heavily overlapping content.
4. Co-ordination of a point-barring system with the other Boards of Studies at the IT University.
5. Processing of applications for credit transfers and exemptions.
6. Development and updating of the programme's aims, contents and objectives in relation to scientific, business and other relevant developments in society, as well as following up on programme evaluations.
7. Drafting proposals for new curricula and for changes to existing curricula.

Subsection 5. The participation of each student in a study activity, and all the examinations associated with that activity, is subject to one, and only one, Board of Studies at the IT University, as follows: If the study activity is defined as a course activity, the student's participation in the activity and all examinations associated with it falls under the jurisdiction of the Board of Studies under whose auspices the course activity falls. If the study activity is defined as a project activity or a thesis, the student's participation in the activity and in the examination falls under the jurisdiction of the Board of Studies that approved the student's participation in the project activity, cf. section 13, subsections 5-6 and section 15, subsection 1.

Subsection 6. The IT University may apply to the Ministry of Science, Technology and Innovation for permission to deviate from the MSc in Information Technology Executive Order as part of an experiment. The application must also stipulate the duration of the experiment and the form of reporting.

Exemptions

Section 23. When justified by unusual circumstances, the IT University is entitled to grant exemptions from those rules in the curriculum and in the MSc in Information Technology Executive Order that fall within the IT University's sphere of competence, and which are not defined as infeasible by the MSc in Information Technology Executive Order and other relevant acts and executive orders.

Subsection 2. The authority to grant exemptions stipulated in subsection 1 is administered by the three Boards of Studies, cf. section 22, subsection 2 in the area of responsibility of the appropriate Board of Studies, cf. section 22.

Subsection 3. If justified by unusual circumstances, the Ministry of Science, Technology and Innovation is entitled to grant exemptions from the MSc in Information Technology Executive Order, apart from instances where the IT University is empowered to grant exemptions, cf. the MSc in Information Technology Executive Order section 3, subsection 2, section 5, subsection 2, and section 17, subsection 2.

Complaints

Section 24. Complaints about decisions made by the IT University in accordance with the MSc in Information Technology Executive Order may be submitted to the Ministry of Science, Technology and Innovation if they refer to legal matters.

Subsection 2. Complaints regarding IT University MSc programmes, which have not been outsourced, are submitted to the IT University.

Subsection 3. Complaints regarding outsourced IT University MSc programmes are submitted to the appropriate universities.

Subsection 4. The deadline for submitting complaints under subsection 1 is two weeks from the day that the decision is communicated to the complainant.

Subsection 5. If the complaint is not upheld by the university, and the complainant wishes to pursue the matter further, the university will draft a statement, which the complainant will have the opportunity to comment upon, within a deadline of one week. The university will submit the complaint to the Ministry of Science, Technology and Innovation along with the statement and any comments pertaining to it made by the complainant.

Subsection 6. All complaints must be in writing and must include justification.

Subsection 7. Regarding complaints, please also refer to the IT University's rules and procedures for complaints.

Chapter 6

Date of commencement and transitional regulations

Section 25. This curriculum comes into force 1 January 2004 and applies to all students admitted to the MSc programmes that start after that date.

Subsection 2. Students who commenced their studies before this curriculum came into force have the right to complete their programmes under the curriculum that was valid at the time they commenced their studies.

Subsection 3. Students who commenced their studies before this curriculum came into force may apply to the Study Administration to complete the programme under this curriculum if this can be done within a limit of 120 ECTS points.

Subsection 4. When a new curriculum is published, or in the event of significant changes to this curriculum, transitional regulations will be set out in the curriculum.

Approved by Vice Chancellor Mads Tofte, 13 November 2003.